

~~(WPAT)~~

AN - 88-335621/47

XRAM- C88-148441

TI - Safe antibacterial agent with micro:powder form - comprises clay mineral
contg. at least one metal ion or cpd. between layers

DC - A60 B06 D22 D21

PA - (SHIS) SHISEIDO KK

NP - 2

NC - 1

PN - JP63250309-A 88.10.18 (8847) 6p

JP95116008-B2 95.12.13 (9603) 4p A01N-061/00

PR - 87.04.07 87JP-084993

AP - 87.04.07 87JP-084993

FD - JP95116008 Based on JP63250309

IC - A01N-059/16 A01N-059/20 A01N-061/00

AB - (J63250309)

The antibacterial agent is composed of clay mineral. The clay mineral has
one or at least two metal ions except sodium, potassium, lithium and
calcium or one or at least two metal cpds. except sodium, potassium,

lithium, and calcium between layers.

The metal ion pref. comprises copper ion, cobalt ion, cadmium ion,
silver ion, or zinc ion. The metal cpd. pref. comprises a metal
hydroxide, or metal oxide. The metal hydroxide or the metal oxide
comprises copper, cobalt, cadmium, silver or zinc hydroxide or oxide. The
clay mineral comprises water swelling clay mineral. The water swelling
clay mineral comprises layer silicate minerals belonging to the smectite
such as montmorillonite, beidelite, nontronite, saponite, or hectorite.
One or at least two clay minerals are used. The conc. of the clay mineral
is at least 20 wt.%.

USE/ADVANTAGE - The antibacterial agent has high safety and has
good antibacterial properties towards various microorganisms such as
Pseudomonas aeruginosa, Escherichia coli, Staphylococcus aureus, and
Propionibacterium acnes. The antibacterial agent is used as medicines,
skin application agent, or toilet articles. The antibacterial agent is of
micropowder shape and easily carried on paper or a sheet. The
antibacterial agent has thermal stability up to 500 deg.C, allowing
pasting of the antibacterial agent into plastics. (6pp Dwg.No.0/0)